

U.S.S.N. 09/380,773

Filed: September 03, 1999

AMENDMENT AND RESPONSE TO OFFICE ACTION

b'
corel. c)] culturing [the cell] recombinant cells under conditions suitable for the production of the polyester[; and

isolating the polyester from the cell] , wherein the recombinant cells express a polyhydroxyalkanoic acid synthase protein and have been genetically engineered to express a fatty acid:acyl-coenzyme A transferase protein.

b² 50. (amended) The method of claim 38, wherein the culture contains materials selected from the group consisting of 4-hydroxybutyric acid, the sodium salt of 4-hydroxybutyric acid, γ -butyrolactone, 1,4-butanediol, 4-hydroxyvaleric acid, γ -valerolactone, 1,4-pentanediol, 3-hydroxybutyric acid, the sodium salt of 3-hydroxybutyric acid, a hydroxypropionic acid, a hydroxybutyric acid, a hydroxyvaleric acid, a hydroxycaproic acid, a hydroxyheptanoic acid, a hydroxyoctanoic acid, a hydroxydecanoic acid, γ -caprolactone, γ -heptanolactone, γ -octanolactone, or γ -decanolactone.

sub c 2/3 b 3 52. (amended) The method of claim 38, wherein the cell is [further capable of producing] genetically engineered to express a heterologous protein capable of hydrolysing a lactone to the corresponding hydroxyalkanoic acid.

53. (amended) The method of claim 38, wherein the cell is [further capable of producing] genetically engineered to express a heterologous 2-oxyglutarate decarboxylase protein and a heterologous 4-hydroxybutyrate dehydrogenase protein.

54. (amended) The method of claim 38, wherein the cell is [further capable of producing] genetically engineered to express a heterologous protein selected from the group consisting of a 2-methylcitrate synthase protein, a 2-methylcitrate dehydratase protein, 2-methylisocitrate

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sub
cont'd

dehydratase protein, 2-methylisocitrate lyase protein, a succinate:acetyl-Co A transferase protein,
a succinate-semialdehyde dehydrogenase protein, and a 4-hydroxybutyrate dehydrogenase
protein.

B3
cond.

55. (amended) The method of claim 38, wherein the cell is [further capable of producing]
genetically engineered to express a succinate-semialdehyde dehydrogenase protein, and a 4-
hydroxybutyrate dehydrogenase protein.

56. (amended) The method of claim 38, wherein the cell is [further capable of producing]
genetically engineered to express a 2-methylcitrate synthase protein, a 2-methylcitrate
dehydratase protein, a 2-methylisocitrate dehydratase protein, a 2-methylisocitrate lyase protein,
a succinate:acetyl-Co A transferase protein, a succinate-semialdehyde dehydrogenase protein,
and a 4-hydroxybutyrate dehydrogenase protein.

Please cancel claims 62-63.

Please add the following new claim 64.

B4
DX

64. (New) The method of claim 38 further comprising separating the polyester from the
recombinant cells.

Remarks

Amendments to the Claims

The claims were previously restricted into three groups, group I, claims 1-25 and 62-63;
group II, claims 26-38; and group III, claims 38-61. The non-elected claims have been
cancelled.

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